An Inaugural Dissertation
on
Cholera Infantum

Submitted to the examination of the

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The Trustees and Medical Faculty of the University

of Pennsylvania.

For the Degree of Doctor of Medicine.

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My object in this Essay, is to give a brief view of the cause, and symptoms of the Cholera Infantum, and to mention those remedies that have been found most effectual in curing the disease. It is a circumstance no less melancholy than true, that many hundreds fall victims to this disease each season. To be satisfied of this, it will only be necessary to examine the bills of mortality, published in the months of July, August and September, the months in which this disease commonly prevails, and we cannot but be sensibly impressed with the formidable nature of the complaint, whose ravages are so great, and alarming. Why I ask is this fatality? Is it because the name only, and not the grade of the disease is prescribed for? Or is it because the practitioner is

not called soon enough, and of course cannot attack the disease in its forming state or incipient state, at which time it might probably in all instances be overcome with very little trouble? As this disease has frequently been the subject of dissertations of this kind, and as so excellent an account of its cause & cure has been given, by the venerable professor of the practice, in the University of Pennsylvania, in one of his volumes, that a mere repetition of what has been already said, may perhaps seem superfluous; nevertheless, there are one or two circumstances, which now and then occur in this disease, which I do not find taken notice of by any person who has given an account of the complaint, and which without being attended to by the practitioner, could not be successfully treated. As no better history of its symptoms can be given, than has been done in the

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work mentioned above by Dr Rush. I hope I shall be excused for taking this account of them from it in his own words. He says then "That its frequency and danger are always in proportion to the heat of the weather. It affects children from the first or second week after their birth, till they are two years old. It sometimes begins with a diarrhoea, which continues for several days without any other symptom of indisposition; but it more frequently comes on with a violent vomiting and purging and a high fever. The matter discharged from the stomach and bowels is generally yellow or green, but the stools are sometimes slimy and bloody, without any tincture of bile. In some instances they are nearly as limpid as water. Worms are frequently discharged in each kind of the stools that has been described. The children in this stage of the disease appear to

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suffer a good deal of pain. They draw up their feet, and are never easy in one posture. The pulse is quick & weak. The head is unusually warm, while the extremeties retain their natural heat, or incline to be cold. The fever is of the remitting kind, and discovers evident exacerbations, especially in the evenings. The disease affects the head so much, as in some instances to produce symptoms not only of delirium, but of mania, insomuch that the children throw their heads backwards and forwards, and sometimes make attempts to scratch and to bite their parents, nurses, and even themselves. A swelling frequently occurs in the abdomen, and in the face and limbs. An intense thirst attends every stage of the disease. The eyes appear languid and hollow, and the children generally sleep with them half closed. Such is the insensibility of the system in some

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instances in this disease, that flies have been seen to alight upon the eyes when open, without exciting a motion in the eyelids to remove them". I saw a patient in this complaint, who was seized with something like coma every day about 3. O. Clock; its occurrence was prevented by large doses of castor oil and blisters to the ankles. The Doctor then says "sometimes the vomiting continues without the purging, but more generally the purging continues without the vomiting through the whole course of the disease. The stools are frequently large and extremely fetid, but in some instances they are without smell, and resemble drinks and aliments which have been taken into the body. The disease is sometimes fatal in a few days. I once saw it carry off a child in four and twenty hours. Its duration is varied by the season of the year, and by

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the changes in the temperature of the weather". I have seen one case where the disease appeared to be protracted by the state of the mothers bowels; she had a diarrhoea with which the complaint of the child always sympathized; i.e. it corresponded with the state of the mothers bowels in every aggravation or diminution of her complaint, and finally was not cured until the mother had recovered. I shall not attempt to explain this curious fact, but merely mention it, that in all tedious cases an enquiry may be made respecting the state of the mothers bowels. I will observe however, that it is denied by some author that the child at the breast, is or can be affected by any disorded state of the mother or nurse like the above; but this is proved to my satisfaction to be erroneous by Dr. Barton, in his ingenious and interesting lectures

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on milk, and the case mentioned above tends also to confirm the opinion. Dr. Rush then observes "A cool day frequently abates its violence, and disposes it to a favourable termination. It often continues, with occasional variations in its appearance, for six weeks or two months." This disease has very erroneously been ascribed to several causes, such as dentition, worms &c. That it is owing to worms is proved to be erroneous by dissection when the disease has terminated fatally, there being in many cases no worms found in the intestines. If dentition is the cause, why does it not occur at every season of the year? It is well known that the disease most frequently occurs at those seasons of the year when bilious fevers prevail in adults; it may therefore in my opinion be considered as a modification of those diseases, affecting children

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differently only because their predispositions are differ-
-ent. According to the arrangement of disease then as it
affects different systems, we would call it an intes-
-tinal state of fever; this being admitted, the treatment
will not be so difficult. As we find this disease ap-
-pearing with greater malignaty in some seasons
than in others, we would attribute this in some meas-
-ure to an inflammatory constitution of the atmosphere
and as this will influence the disease considerably,
in proportion as it prevails, so will the disease be more
or less of an inflammatory nature, which will prob-
-ably in many instances require blood to be drawn.
The quantity of bile poured into the intestines must
irritate them powerfully, particularly as they are
so very irritable at this time. It is well known that
what Dr. Rush calls the Alimentary predisposition

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generally prevails in young children; now I suppose this system being more debilitated at this time of life and made more so by the unripe fruits of the season is particularly liable to take on disease. From the large quantity of bile generally discharged, it would appear that warm weather produced a more copious secretion of that fluid, and probably also rendering it more acrid, which being poured into the intestines, produces the disagreeable symptoms mentioned above. Our first object then should be to get rid of this superabundant quantity of bile. This is best effected by mild doses of Tartar emetic or sulphate of zinc given in very small quantities and repeated as occasion may require. Gentle purges should also be exhibited, but care should be taken least the patient bee too much exhausted by them

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unnecessarily; the only object being to discharge the offending matter in the intestines. Castor oil I believe is the best medicine of this kind that can be given; there is however sometimes great difficulty in getting our little patients to take this medicine. We should then have recourse to calomel, rhubarb, manna or some other cathartic of the kind. Clysters have done great service in this disease combined with a little laudanum. When we are persuaded that the irritating contents of the bowels are discharged, and the inflammatory symptoms abated, we should then compose the stomach and bowels by means of a little laudanum given in the cretaceous julep; but frequently after the operation of the opium and other medicines are over, it happens that the disease shews a disposition to return. In these cases the repetition of the opiates should if necessary be continued

for several days. In some cases this medicine cures the disease, without the assistance of any other remedy; when however this is not the case, it mitigates the pain, & relieves other distressing symptoms; also in the last stage of the complaint, when hope is almost extinguished very large doses of laudanum has, as it were relieved the little sufferers from the very jaws of death. The warm bath has been recommended to ease pain. The plentiful exhibition of mild deluents have a very good effect in this disease, and from the debility induced by it, it is generally necessary after the more violent and inflammatory symptoms have abated, to have recourse to Tonic and cordial medicines. The bark may then be exhibited and the little patients should be permitted to take a little salted meat, and other articles of a Tonic nature, paying great attention at the same

time to the system, that it be not again thrown into morbid action. Dr Barton in his lectures, says, that the geranium maculatum has been used in this disease with advantage, at the same time observing that astringents are too much neglected in this complaint; but the professor does not omit cautioning against the use of them, and particularly the more stimulating ones, when there is much inflammatory diathesis present. The manner in which this medicine is prepared & exhibited is by boiling the root in milk and let the patient take it ad libitum. Dr Rush says he has found the greatest benefit from country air; our little patients then should, if it is practicable be ordered into the country when the season has arrived favorable to the production of bilious & other fevers and more particularly when the weather is very warm.